

Heavy-Duty Cast Iron and Bronze Pedestal Rotary External Gear Pumps

Description

Sheritech self-priming, positive displacement, external rotary gear pumps operate bi-directionally (reversible) and are ideal for a wide range of industrial, marine, agricultural, and commercial applications. They provide a nearly pulseless flow where non-abrasive and non-particulated fluids are pumped.

Quality features include a keyed drive shaft supported by heavy-duty ball bearing, large bushing support and an adjustable pressure relief valve that can be ported internally or externally. Motor HP recommendations are listed in the performance chart.

Uses: For use with non-particulate and non-abrasive fluids compatible with pump wet-end construction component materials.

- Capacities up to 24.8 GPM.
- Maximum pressure to 125 PSI and working casing pressure to 200 PSI.
- Max. RPM: 1725.
- Suction lift to 19.5 ft.
- Temperatures from -20° to 280° F.
- Large female NPT ports allow use with viscous fluids.
- Pumps can be long-coupled with electric motors to handle up to 500 SSU at 1725 RPM or run at reduced speeds to handle a wide range of pump fluid specific gravities and viscosities up to 100,000 SSU. (Maximum torque loads are found in the performance chart.)
- Mechanical seals (Viton, Teflon[®] or Buna) with carbon on ceramic faces with engineered flush chamber for internal or external flush to handle viscosities beyond 2000 SSU.
- Pumps can operate bi-directionally (reversible).
- Ball bearing shaft support allows for pulley drive.
- Standard adjustable pressure relief valves that can be internally or externally ported.

BRONZE MODELS – Excellent for water-based fluids. Ryton PPS (Polyphenylene Sulfide) spur gears provide quiet operation and chemical compatibility. No metal-to-metal contact. Pumps have 303 stainless steel shafts and carbon graphite bushings. Buna-N mechanical seal with carbon on ceramic faces has a temperature range of -20° to 210° F. Wet-end parts are constructed from bronze, brass, Ryton PPS, stainless steel (17-7, 303 and/or 18-8), graphite, carbon, ceramic, vellumoid, and Buna-N.

CAST IRON MODELS – These pumps are specifically designed to be used with oil-based fluids, not to be used with water-based fluids. Pumps include steel spur gears with steel shafts and cast iron shaft support. Viton mechanical seal with carbon on ceramic faces has a temperature range of 32° to 280° F. Wet-end parts are constructed from cast iron, steel, stainless steel (17-7, 303 and/or 18-8), carbon, ceramic, Viton, and vellumoid.

REPAIR SEALS AND OPTIONS – Standard seals are Viton and Buna-N with carbon on ceramic faces. An optional Teflon[®] seal of 316 SS construction with carbon on ceramic faces is available. Standard seals can be located in the repair parts list pages in the owner's manual. When ordering optional mechanical seals, be sure to order the optional o-rings in the same material. These can be found in the repair parts section in the owner's manual.

NOTE: This series of gear pumps is also available as close-coupled models equipped with motors.



WARNING: Do not use to pump flammable or explosive fluids such as gasoline, fuel oil, kerosene, etc. Do not use in flammable and/or explosive atmospheres. When pumping hazardous or dangerous materials, use only in a room or area designated for that purpose. For your protection, always wear proper clothing, eye protection, etc. in case of any malfunction. For proper handling techniques and cautions, contact your chemical supplier, insurance company and local agencies (fire dept., etc.). Failure to comply with this warning could result in personal injury and/or property damage.

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Model Ordering Codes and Options



Example Model: GPBN5V (will require 2 HP ODP motor with >1.15 Service Factor*)
(motor not supplied with pedestal pump)

1st Mounting	2nd Material	3rd Seal (Mech)	4th Gear** Size: Ports	5th Options
GP: Gear Pedestal	B: Bronze CI: Cast Iron	N: Buna-N V: Viton T: Teflon	2: 3/8" 3: 1/2" 4: 3/4" 5: 1" 6: 1 1/4"	V: Pressure Relief Valve (standard)

NOTE: Not all order code combinations (configurations) are standard models available from the manufacturer. Custom model configurations may require ordering standard components and/or optional parts that will need to be assembled by the customer.

Manufacturer reserves the right to change model order codes, standard models, specifications, and performance without notification.

(*) ODP motors have > 1.15 service factors. Due to service factor, it is recommended TEFC motors are oversized by one HP increment.

Pedestal Pumps are not supplied with a motor.

(**) Bronze models have Ryton PPS (Polyphenylene Sulfide) gears. Cast Iron models have steel gears.

Maximum motor speed is 1725 RPM.

Cast iron is not for use with water-based fluids.

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Performance (Standard Models)

Pump Model	*Port Size	Max. Input Torque in.-lbs.	Pump RPM	Suction** Lift (ft)	GPM Pumping 10 Wt. Oil at 70° F (500 SSU)											
					Free Flow		25 PSI		50 PSI		75 PSI		100 PSI		125 PSI	
					GPM	HP	GPM	HP	GPM	HP	GPM	HP	GPM	HP	GPM	HP
GPBN2V	3/8	45	900	1.5	2.5	1/4	2.5	1/4	2.4	1/4	2.3	1/4	2.1	1/4	1.8	1/3
GPCV2V			1200	2.2	3.3	1/4	3.3	1/4	3.2	1/4	3.1	1/3	2.9	1/3	2.6	1/2
			1725	3.5	4.8	1/4	4.8	1/3	4.7	1/2	4.6	1/2	4.4	3/4	4.3	3/4
GPBN3V	1/2	90	900	2.8	3.7	1/4	3.6	1/3	3.5	1/3	3.4	1/2	3.2	1/2	2.8	3/4
GPCV3V			1200	5.7	4.9	1/4	4.8	1/3	4.7	1/2	4.6	1/2	4.4	3/4	4.0	3/4
			1725	7.9	7.0	1/2	6.9	1/2	6.8	3/4	6.7	1	6.5	1	6.1	1½
GPBN4V	3/4	90	900	5.1	5.6	1/3	5.5	1/3	5.4	1/2	5.3	3/4	5.0	1	4.5	1
GPCV4V			1200	6.7	7.5	1/3	7.4	1/2	7.3	3/4	7.2	1	6.9	1	6.4	1½
			1725	12.3	10.8	1/2	10.7	3/4	10.6	3/4	10.5	1	10.2	1½	9.7	1½
GPBN5V	1	160	900	6.6	10.8	1/2	10.6	3/4	10.5	3/4	10.4	1	10.0	1	9.4	1½
GPCV5V			1200	9.3	14.3	1/2	14.2	3/4	14.1	1	13.9	1½	13.5	1½	12.9	2
			1725	15.2	20.6	3/4	20.5	1	20.3	1½	20.2	2	19.8	2	19.2	3
GPBN6V	1¼	160	900	8.1	12.6	1/2	12.5	3/4	12.3	1	12.1	1	11.7	1½	11.1	1½
GPCV6V			1200	11.7	16.7	3/4	16.6	1	16.4	1½	16.2	1½	15.8	2	15.2	2
			1725	19.5	24.8	3/4	24.7	1	24.5	1½	24.3	2	23.9	3	23.3	3

Test data taken on SAE 10 wt. oil at 70° F (500 SSU).

Performance in water will decrease by about 10%, and HP required will also be reduced by 10%. (Don't use water with Cast Iron.)

Pump performance when pump is new. As pump wears, the performance will decrease.

(*) Female NPT inlet and outlet (in inches).

(**) Suction lift requires wetted gears and primed seal chamber.

NOTES: Max. PSI = 125

Max. Viscosity = 500 SSU at 1725 RPM with standard spur gears

Max. RPM = 1725

Max. Specific Gravity = 1.1 at 125 PSI, up to 1.6 at lower PSI & viscosity.

Max. Input Torque = See chart above.

Reverse Rotation = Pumps are equipped with pressure relief valves and can be run in reverse rotation; however, pressure relief valve will not function when pump is reversed unless pump relief valve cover is rotated 180°.

The pump relationship between volume (GPM), pressure (PSI), speed (RPM) and horsepower is shown on performance chart in Shertech Motor Manual form L-4082. When pumping a more viscous liquid, a slower speed, a larger pipe size pump, and possibly a larger motor should be selected.

Manufacturer reserves the right to change performance without notification.

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Price List and Specifications (Standard Models)

List Price	Model	Max. RPM	PUMP CONSTRUCTION (Wet End)								Ship Wt. (lbs.)
			NPT Inlet Outlet & Port (inches)	Body & Cover Castings	Gear Material	Gasket Material	Bushing Material	Shaft, Keys & Clips	Pressure Relief Valve*	O-Rings & Seals**	
Bronze Models											
\$	GPBN2V	1725	3/8	Bronze	Ryton	Vellumoid	CG	303 SS	BR & SS	Buna-N	10.5
\$	GPBN3V	1725	1/2	Bronze	Ryton	Vellumoid	CG	303 SS	BR & SS	Buna-N	11.2
\$	GPBN4V	1725	3/4	Bronze	Ryton	Vellumoid	CG	303 SS	BR & SS	Buna-N	12.8
\$	GPBN5V	1725	1	Bronze	Ryton	Vellumoid	CG	303 SS	BR & SS	Buna-N	19.8
\$	GPBN6V	1725	1¼	Bronze	Ryton	Vellumoid	CG	303 SS	BR & SS	Buna-N	22.8
Cast Iron Models											
\$	GPCV2V	1725	3/8	CI	Steel	Vellumoid	CI	Steel	Steel & SS	Viton	11.2
\$	GPCV3V	1725	1/2	CI	Steel	Vellumoid	CI	Steel	Steel & SS	Viton	12.6
\$	GPCV4V	1725	3/4	CI	Steel	Vellumoid	CI	Steel	Steel & SS	Viton	13.4
\$	GPCV5V	1725	1	CI	Steel	Vellumoid	CI	Steel	Steel & SS	Viton	18.7
\$	GPCV6V	1725	1¼	CI	Steel	Vellumoid	CI	Steel	Steel & SS	Viton	19.0

Ryton = PPS (Polyphenylene Sulfide) SS = Stainless Steel CG = Carbon Graphite CI = Cast Iron BR = Brass

(*) Bronze models are made of brass and/or bronze and stainless steel (302, 303 and/or 18-8). Cast Iron models are made of cast iron, steel and stainless steel (302, 303 and/or 18-8).

(**) Made from 18-8 stainless steel and carbon on ceramic seal faces. O-rings are Buna-N or Viton to match the seal type.

NOTE: Manufacturer reserves the right to change specifications without notification.

To Order Optional Motors

For custom applications or configurations, select a motor from the motor section of this catalog.

Source: Owner's Manual L-4086 (11/07)